

Having thus described the preferred embodiments, the invention is now claimed to be:

1. A tailgate assembly adapted to be mounted along an open edge of a vehicle's load-carrying bed wherein the tailgate is able to alternatively pivot about (1) an axis generally parallel with a bottom edge of the tailgate for movement between a closed position and a fold-open position and (2) an axis generally parallel with a lateral edge of the tailgate for movement between the closed position and a swing-open position, the tailgate assembly comprising:

a stamped sheet metal frame having a reinforced cross-sectional shape with an inner side facing an associated vehicle's load-carrying bed and an outer side opposite the inner side; and

a skin attached to the outer side of the frame.

2. The tailgate assembly of claim 1 further including:

a structural cladding attached to the inner side of the frame.

3. The tailgate assembly of claim 2 wherein the structural cladding includes a corrugated section to provide torsional and bending resistance.

4. The tailgate assembly of claim 2 wherein the structural cladding is formed of a sheet molding compound which enables the cladding to be relatively lightweight.

5. The tailgate assembly of claim 1 wherein the frame having a reinforced cross-sectional shape includes a raised section extending around an area adjacent a perimeter of the frame for increasing the stiffness of the frame and resisting bending of the frame when a load is applied thereto.

6. The tailgate assembly of claim 5 wherein the frame further includes a peripheral flange located between the raised section and the perimeter of the frame.

7. The tailgate assembly of claim 6 wherein the skin is attached to the peripheral flange via welding.

8. The tailgate assembly of claim 1 wherein the frame includes:

- a raised section defined along a frame perimeter;

- a peripheral flange extending outwardly from the raised section in a plane generally parallel to the tailgate, the skin having a peripheral edge that mates with the frame peripheral flange for providing a welding seam that is relatively easy to access during assembly of the tailgate.

9. The tailgate assembly of claim 2 further including:

- a cap connected to cladding and the skin along a top side of the frame.

10. The tailgate assembly of claim 1 wherein the frame includes a reinforcing rib adjacent at least one edge of the frame.

11. The tailgate assembly of claim 10 wherein the frame includes a reinforcing rib extending along each perimeter edge of the frame.

12. The tailgate assembly of claim 1 wherein the frame includes an embossed area adjacent a perimeter of the frame.

13. A dual-mode vehicle closure structure comprising:
a frame having a double-hat shape including a raised section and an inner flange and an outer flange flanking the raised section;

a sheet molding compound structural cladding adjacent and connected to the raised section of the frame; and

a skin adjacent and connected to the outer flange of the frame.

14. The dual-mode vehicle closure structure of claim 13 further including:

a control mechanism connected to the inner flange of the frame for operating and disabling associated locks and hinges of the tailgate.

15. The dual-mode vehicle closure structure of claim 13 wherein the structural cladding includes a corrugated section for spreading any load applied thereto to the frame.

16. The dual-mode vehicle closure structure of claim 15 wherein the corrugated section is generally located in an area defined inside the raised section.

17. The dual-mode vehicle closure structure of claim 13 further including:

at least one stiffener connected to the frame for reinforcing the frame.

18. The dual-mode vehicle closure structure of claim 13 wherein the at least one stiffener is positioned adjacent at least one corner of the frame that will have an associated hinge attached thereto.

19. A vehicle load-carrying bed comprising:

a generally rectangular bed floor;

a front wall extending upwardly adjacent a front edge of the bed floor;

a first side wall extending upwardly adjacent a first side edge of the bed floor;

a second side wall extending upwardly adjacent a second, opposite side edge of the bed floor; and

a dual-axis tailgate positioned along a rear edge of the bed floor and extending between the first and second sidewalls, the tailgate pivotally movable about an axis generally parallel with the rear edge of the bed floor and about an axis generally parallel with a vehicle bed edge of the first side wall, the tailgate including:

a sheet metal frame having an embossed area for increasing the rigidity of the tailgate;

a cladding attached to a first side of the frame facing the front wall; and

a skin attached to a second, opposite side of the frame.